

What is claimed is:

1. A processing apparatus for processing a workpiece, comprising:

5 a cover for covering a portion of a surface, to be processed, of said workpiece;

a process chamber formed by said cover and said surface, to be processed, of said workpiece; and

10 a sealing portion provided between said cover and said surface of said workpiece for sealing said process chamber.

2. A processing apparatus according to claim 1, wherein said sealing portion comprises at least one of a contact seal and a non-contact seal.

3. A processing apparatus according to claim 2, wherein said contact seal comprises at least one of an O-ring and an oil seal.

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4. A processing apparatus according to claim 2, wherein said non-contact seal comprises at least one of a magnetic fluid seal and a differential pumping seal.

25 5. A processing apparatus according to claim 1, further comprising a chemical vapor deposition device in said process chamber for depositing a thin film on said surface of said workpiece.

6. A processing apparatus according to claim 1,
further comprising a chemical liquid cleaning device in said
process chamber for cleaning said surface of said workpiece
5 with a chemical liquid.

7. A processing apparatus according to claim 1,
further comprising a sensor for detecting conditions of said
surface of said workpiece.

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8. A processing apparatus according to claim 7,
further comprising an adjustment device for adjusting
processing conditions in said process chamber based on a
signal from said sensor.

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9. A processing apparatus according to claim 1,
wherein said surface of said workpiece is processed under a
pressure lower than atmospheric pressure.

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10. A processing apparatus according to claim 1,
wherein said surface of said workpiece is processed under a
wet condition.

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11. A processing method for processing a workpiece,
comprising:

disposing on a surface, to be processed, of said
workpiece, a processing apparatus comprising a cover for
covering a portion of said surface, to be processed, of said

workpiece, a process chamber formed by said cover and said surface, to be processed, of said workpiece, and a sealing portion provided between said cover and said surface of said workpiece for sealing said process chamber; and

5 processing said surface of said workpiece in said process chamber.

12. A processing method according to claim 11, wherein a plurality of processing apparatuses are disposed on
10 said workpiece, and a plurality of portions of said workpiece are simultaneously processed in the respective process chambers of said plurality of processing apparatuses.

13. A processing method according to claim 12,
15 wherein a plurality of processes are performed under different processing conditions in said respective process chambers of said plurality of processing apparatuses.

14. A processing method according to claim 11,
20 further comprising changing processing conditions in said process chamber for sequentially performing a plurality of processes.

15. A processing method according to claim 11,
25 wherein said surface of said workpiece is processed while said process chamber is being moved relatively to said surface of said workpiece.

16. A processing method according to claim 11, wherein said process chamber is continuously moved relatively to said surface of said workpiece.

5 17. A processing method according to claim 11, wherein said process chamber is intermittently moved relatively to said surface of said workpiece for processing another portion of said surface of said workpiece.

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